

**What is claimed is:**

1. High-frequency measuring system for measuring a device under test (19), comprising a measuring-device unit (2) and at least one high-frequency module (3, 24, 25), wherein each high-frequency module (3, 24, 25) can be placed spatially separately from the measuring-device unit (2) and each high-frequency module (3, 24, 25) can be connected to the measuring-device unit (2) via a digital interface (23, 26, 27),  
**characterised in that**  
the processing of input data to form a bitstream to be transmitted via the digital interface (26) takes place by assigning the symbols to states in the state diagram of the I-Q (in phase - quadrature phase) level in the measuring-device unit (2), and/or that a digitised intermediate-frequency signal is transmitted via the digital interface (27).
2. High-frequency measuring system according to claim 1,  
**characterised in that**  
the high-frequency module (3, 24, 25) comprises a transmitter device and/or a receiver device (28, 29) for communication with a device under test (19).
3. High-frequency measuring system according to claim 1 or 2,  
**characterised in that**  
the digital interface (23, 26, 27) is a serial interface.

4. High-frequency measuring system according to claim  
1 or 2,  
**characterised in that**  
5 the digital interface (23, 26, 27) is a parallel  
interface.
5. High-frequency measuring system according to any  
one of claims 1 to 4,  
10 **characterised in that**  
the digital interface (23, 26, 27) is an optical  
interface.
6. High-frequency measuring system according to any  
15 one of claims 1 to 4,  
**characterised in that**  
the digital interface (23, 26, 27) is an electrical  
interface.
- 20 7. High-frequency measuring system according to any  
one of claims 1 to 6,  
**characterised in that**  
the at least one high-frequency module (3, 24, 25)  
is supplied with electrical energy via a power-  
25 supply unit (14, 40) independent from the  
measuring-device unit (2).
8. High-frequency measuring system according to any  
one of claims 1 to 7,  
30 **characterised in that**  
several identical ports (5.1, 5.2, 5.3) are  
provided on the measuring-device unit (2) for the  
digital interface (23).

9. High-frequency measuring system according to any  
one of claims 1 to 8,  
**characterised in that**  
several different ports (5.1, 5.2, 5.3, 6.1, 6.2,  
5 6.3) are provided on the measuring-device unit for  
the digital interface (23).
10. High-frequency measuring system according to any  
one of claims 1 to 9,  
10 **characterised in that**  
control data and/or user data can be transmitted in  
a standardised form via the digital interface and  
that the at least one high-frequency module (24')  
comprises means for processing a high-frequency  
15 signal with regard to the transmission of data in  
standardised form via the digital interface and/or  
for processing the data transmitted in standardised  
form with regard to at least one given transmission  
standard for the high-frequency signal.  
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